REMARKS

Claims 1-3, 5-12 and 14-36 are pending in the present application. Claims 1-3, 5, 8-12, 14, 17-26, 29 and 30-36 were rejected under 35 USC 103(a) as being unpatentable over Edgar '590 in view of Ross et al. '471. Claims 6, 7, 15, 16, 27, and 28 were rejected under 35 USC 103(a) as being unpatentable over Edgar '590 in view of Ross et al. '471 further in view of Edgar WO '397.

With reference to the rejection of 1-3, 5, 8-12, 14, 17-26, 29 and 30-36 under 35 USC 103(a) as being unpatentable over Edgar '590 in view of Ross et al. '471, the applied references, whether considered individually or in combination, are not believed to anticipate or make obvious the specific features required by the claimed invention. Claim 1 relates to a method for generating a digital representation of an image that comprises applying visible and infrared light to an image storing medium which includes the image; directing the visible and infrared light which is reflected from or transmitted through the image storing medium to a reflective surface, wherein the visible light is reflected by the reflective surface towards a first sensor and the infrared light is transmitted through the reflective surface towards a second sensor; detecting the visible light which is reflective from or transmitted through the image storing medium at the first sensor in order to provide a first image signal; and detecting the infrared light which is reflective from or transmitted through the image storing medium at the second sensor in order to provide a second image signal. Claim 1 further requires that the second image signal be used to modify the first image signal to generate a modified digital representation of the image, and that the optical distance between the image storing medium and the first sensor be different from the optical distance between the image storing medium and the second sensor.

The reference to Edgar '590 discloses a system for detecting surface defects in a reflection scan of a print. Edgar '590 shows an embodiment illustrated in Figure 5 in which a transmissive scan is performed through a substrate 502, wherein the arrangement includes a lamp 508 that emits light rays that pass through or are reflected from substrate 502 and are sensed by a camera 510.

Edgar '590 also discloses a different embodiment in Figure 8 which is a reflective system arrangement where a lamp 808 emits light rays that are reflected from substrate 802 and are sensed by a camera 810.

It is noted that the embodiments in Figures 5 and 8 of Edgar '590 are different embodiments and there appears to be no suggestion in Edgar '590 that the embodiments of Figures 5 and 8 can be modified to provide for the different sensors required by the claimed invention. Further, there is no suggestion or showing in Edgar '590 of the concept of directing visible and

infrared light that is reflected from or transmitted through an image storing medium to a reflective surface. In the embodiment of Figure 5 of Edgar '590, the light is transmitted through the substrate and thereafter sensed by sensor 510, while in the embodiment of Figure 8, the light is reflected from the substrate and sensed by sensor 810. Therefore, Edgar '590 does not show or suggest the concept of applying both visible and infrared light through an image storing medium, and directing the visible and infrared light which is reflective from or transmitted through the image storing medium to a reflective surface, wherein the visible light is reflected by the reflective surface toward a first sensor and the infrared light is transmitted through the reflective surface towards a second sensor. In Edgar '590, different embodiments are disclosed and there is no suggestion of the combination of first and second sensors and a reflection surface as required by claim 1.

The reference to Ross et al. '471 does not correct the deficiencies of Edgar '590 with respect to the claimed invention. The reference to Ross et al. '471 is directed to a method and apparatus that enable selected subject matter to be inspected on a real-time basis to detect characteristics which are otherwise invisible to the naked eye. More specifically, as shown in Figure 4 of Ross et al. '471, light is applied to, for example, an object such as tree 12 to provide for a false colored image of the tree in a manner in which characteristics of the tree can be clearly seen in an image.

Absent Applicants' disclosure, one having ordinary skill in the art would not have combined the references to Edgar '590 and Ross et al. '471 to achieve the claimed invention. It is noted that the reference to Edgar '590 is related to applying light to an image storing medium that includes an image for the purpose for generating a digital image representative of the image on the image storing medium. The reference to Ross et al. '471 is concerned with the viewing of an object such as a tree and therefore, is not directed to the concept of applying visible and infrared light to an image storing medium that includes an image. Further, an object of Ross et al. '471 is to create a false colored image of the object such as a tree by using the three primary colors, (red, green and blue) wherein characteristics of the object which are otherwise invisible with the naked eye can be seen. As an example, when the apparatus of Ross et al. '471 is used to inspect green plant life, those portions of the plant life that exhibit healthy growth characteristics can be shown in a specific predominant color in the image. On the other hand, Edgar '590 is concerned with detecting and correcting for surface defects of a print having an image. Therefore, absent Applicants' disclosure, one having ordinary skill in the art looking to correct for defects on an image storing medium that carries an image thereon by utilizing multiple sensors would not

have looked at the reference to Ross et al. '471 which relates to the viewing of a physical object in a manner which facilitates the inspection of certain characteristics of the object.

Further, in the present invention, the pair of sensors are employed in order to simultaneously acquire image data from both the visible scanning light and the infrared scanning light so as to provide for a more efficient system in the environment of the application of visible and infrared light to an image storing medium having an image thereon. This is not shown or suggested in the reference to Ross et al. '471.

The same arguments as noted above with respect to claim 1, also apply to claim 10 which relates to a method for generating a digital representation of an image, wherein visible and infrared light is applied to an image storing medium that includes an image and multiple sensors are used.

Claim 19 relates to a system for use in generating a digital representation of an image which includes one or more light sources operable to apply first and second types of light to an image storage medium having an image, a first and second sensor and a reflective surface. The same arguments as noted above with respect to claim 1, also apply to the system of claim 19.

Claim 29 relates to a digital representation of an image which includes the steps of applying visible and infrared light to an image storing medium that includes an image, directing the light to a reflective surface, detecting the light which is reflected from or transmitted through the image storing medium, and detecting the visible and infrared light to create first and second image signals. The arguments noted above with respect to claim 1 also apply to claim 29.

Accordingly, the references to Edgar '590 and Ross et al. '471, whether considered individually or in combination, do not anticipate or make obvious the specific features required by claims 1, 10, 19 and 29.

Claims 2-3, 5, 8-9, 31, 33 and 34 depend either directly or indirectly from claim 1; claims 11-12, 14, 17-18, 32, 35 and 36 depend either directly or indirectly from claim 10; and claims 20-26 and 30 depend either directly or indirectly from claim 19. Each of the above-noted dependent claims set forth further unique features of the present invention which are also not believed to be shown or suggested in the applied references. Accordingly, these claims are also believed to be allowable.

With respect to the rejection of claims 6, 7, 15, 16, 27 and 28 under 35 USC 103 as being unpatentable over Edgar '590 and Ross et al. '471, further in view of Edgar WO '397, the references to Edgar '590 and Ross et al. '471 and their applicability to the claimed invention have been discussed above. Edgar WO '397

which was cited to show a type of CCD array does not correct the deficiencies of Edgar '590 and Ross et al. '471 with respect to the claimed invention. That is, the above-noted references, whether considered individually or in combination, do not show or suggest a system or method wherein visible and infrared light is applied to an image storing medium, the visible and infrared light is reflected from or transmitted through the image storing medium to a reflective surface, the visible and infrared light are detected by different sensors, and the signals from the sensors are used to create a modified digital representation of the image.

Accordingly, Edgar '590, Ross et al. '471 and Edgar WO '397, whether considered individually or in combination, are not believed to show or suggest the features of dependent claims 6, 7, 15, 16, 27 and 28 which set forth further unique features of the present invention with respect to the sensors and the light sources.

In view of the foregoing comments, it is submitted that the inventions defined by each of claims 1-3, 5-12 and 14-36 are patentable, and a favorable reconsideration of this application is therefore requested.

Respectfully submitted,

David A. Novais
Attorney for Applicant(s)
Registration No. 33,324

DAN/ld
Rochester, NY 14650
Telephone: 585-588-2727
Facsimile: 585-477-1148